

Serial No. 09/054,864
Reply Filed: March 28, 2007
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AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

1-4. Cancelled.

5. (Currently Amended) A host device for transferring data to a video processing device, using frame by frame flow control over a high speed serial bus ~~using frame by frame flow control~~, comprising:

a memory;

an input for receiving request packets from the video processing device over the high speed serial bus, wherein each request packet indicates a request from the video processing device to transfer video data defining a video frame, and wherein each request packet includes a stream identifier; and

an output for sending, in response to a request packet, a plurality of data packets including the video data defining the requested video frame from the memory to the video processing device over the high speed serial bus, wherein each data packet includes the stream identifier.

6-18. Cancelled.

19. (Previously Presented) The host device of claim 5, wherein data representing a component of the video data has a precision greater than a byte and wherein the data representing the component of the video data is packed into bytes in the plurality of data packets.

20. (Previously Presented) The host device of claim 19, wherein the plurality of data packets includes a component size field indicating a number of bits per component.

21. (Previously Presented) The host device of claim 5, wherein at least one of the data packets in the plurality of data packets includes a target field indicating a device to which the video processing device is directed to transfer the video data.

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22. (Previously Presented) The host device of claim 5, wherein a data packet in the plurality of data packets includes a boundary signal indicating whether the data packet includes a last component of the video data defining the requested video frame.

23. (Previously Presented) The host device of claim 5, wherein the host device further sends, through the output, a data packet including a command field indicating a command to the video processing device.

24. (Currently Amended) A video processing device for transferring data from a host device, using frame by frame flow control over a high speed serial bus ~~using frame by frame flow control~~, comprising:

a memory;

an output for sending request packets to the host device over the high speed serial bus to request transfer of video data, wherein each request packet includes a stream identifier and requests video data defining a video frame; and

an input for receiving a plurality of data packets from the host device over the high speed serial bus in response to each request packet, wherein each data packet includes the stream identifier and wherein the plurality of data packets include the video data defining the video frame requested by the request packet, and for transferring the received video data to the memory.

25. (Previously Presented) The video processing device of claim 24, wherein a component of the video data has a precision greater than a byte and wherein the component of the video data is packed into bytes in the plurality of data packets.

26. (Previously Presented) The video processing device of claim 25, wherein the plurality of data packets includes a component size field indicating a number of bits per component.

27. (Previously Presented) The video processing device of claim 24, wherein at least one of the data packets in the plurality of data packets includes a target field indicating a device to which the video processing device is directed to transfer the received video data.

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28. (Previously Presented) The video processing device of claim 24, wherein a data packet in the plurality of data packets includes a boundary signal if the data packet includes a last component of the video data defining the requested video frame.

29. (Previously Presented) The video processing device of claim 24, wherein the input further receives a data packet including a command field indicating a command to the video processing device.

30. (Currently Amended) A method for transferring video from a host device to a video processing device, using frame by frame flow control over a high speed serial bus ~~using frame-by-frame-flow-control~~, performed by the video processing device for each video frame in a requested video sequence, comprising:

 sending a request packet including a stream identifier over the high speed serial bus to the host device to request video data defining a video frame in the requested video sequence;

 receiving a plurality of data packets over the high speed serial bus after receipt by the host device of the request packet, wherein the plurality of data packets include the requested video data defining the video frame and the stream identifier; and

 repeating the steps of sending and receiving for each video frame of the requested video sequence.

31. (Previously Presented) The method of claim 30, wherein a component of the video data has a precision greater than a byte and wherein the component of the video data is packed into bytes in the plurality of data packets.

32. (Previously Presented) The method of claim 31, wherein the plurality of data packets includes a component size field indicating a number of bits per component.

33. (Previously Presented) The method of claim 30, wherein at least one of the data packets in the plurality of data packets includes a target field indicating a device to which the video processing device is directed to transfer the video data.

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34. (Previously Presented) The method of claim 30, wherein a data packet in the plurality of data packets includes a boundary signal if the data packet includes a last component of the video data defining the requested video frame.

35. (Previously Presented) The method of claim 30, further comprising receiving from the host device a data packet over the high speed serial bus including a command field indicating a command to the video processing device.

36. (Currently Amended) A method for transferring video from a host device to a video processing device, using frame by frame flow control over a high speed serial bus ~~using frame by frame flow control~~, performed by the host device for each video frame in a requested video sequence, comprising:

receiving a request packet including a stream identifier over the high speed serial bus from the video processing device requesting video data defining a video frame in the requested video sequence;

sending a plurality of data packets over the high speed serial bus to the video processing device after receipt by the host device of the request packet, wherein the plurality of packets include the requested video data defining the video frame and the stream identifier; and

repeating the steps of receiving and sending for each video frame of the requested video sequence.

37. (Previously Presented) The method of claim 36, wherein a component of the video data has a precision greater than a byte and wherein the component of the video data is packed into bytes in the plurality of data packets.

38. (Previously Presented) The method of claim 37, wherein the plurality of data packets includes a component size field indicating a number of bits per component.

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39. (Previously Presented) The method of claim 36, wherein at least one of the data packets in the plurality of data packets includes a target field indicating a device to which the video processing device is directed to transfer the video data.

40. (Previously Presented) The method of claim 36, wherein a data packet in the plurality of data packets includes a boundary signal if the data packet includes a last component of the video data defining the requested video frame.

41. (Previously Presented) The method of claim 36, further comprising sending a data packet including a command field indicating a command to the video processing device over the high speed serial bus.

42. (Currently Amended) A host device for transferring data to a video processing device, using frame by frame flow control over a high speed serial bus, comprising:

a memory;

an input for receiving request packets from the video processing device, wherein each request packet indicates a request from the video processing device to transfer video data defining a video frame, and wherein each request packet includes a stream identifier; and

an output for sending, in response to a request packet, a plurality of data packets including the video data defining the requested video frame from the memory to the video processing device over the high speed serial bus, wherein each data packet includes the stream identifier and a boundary signal indicating whether the data packet ends with a last component of the requested video frame.

43. (Currently Amended) A host device for transferring data to a video processing device using flow control over a high speed serial bus, comprising:

a memory;

an input for receiving request packets from the video processing device over the high speed serial bus, wherein each request packet indicates that the video processing device is has sufficient memory available to be capable of receiving video data of a video frame, and wherein each request packet includes a stream identifier; and

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an output for sending, in response to a request packet, data packets including the video data of a video frame from the memory to the video processing device over the high speed serial bus at a packet rate set by the sender according to the received request packet, wherein each data packet includes the stream identifier.

44. (Previously Presented) The host device of claim 43, wherein the request packets include a packet rate field that specifies a packet rate at which the host device is to send the video data to the video processing device.

45. (Previously Presented) The host device of claim 44, wherein a component of the video data has a precision greater than a byte and wherein the components of the video data are packed into bytes in the data packets sent by the host device.

46. (Previously Presented) The host device of claim 45, wherein the data packets include a component size field indicating a number of bits per component.

47. (Previously Presented) The host device of claim 43, wherein a component of the video data has a precision greater than a byte and wherein the components of the video data are packed into bytes in the data packets sent by the host device.

48. (Previously Presented) The host device of claim 47, wherein the data packets include a component size field indicating a number of bits per component.

49. (New). The host device of claim 5, wherein each data packet in the plurality of data packets includes a packet header and a data field, wherein the packet header includes the stream identifier and the data field includes the video data.

50. (New) The video processing device of claim 24, wherein each data packet in the plurality of data packets includes a packet header and a data field, wherein the packet header includes the stream identifier and the data field includes the video data.

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51. (New) The method of claim 30, wherein each data packet in the plurality of data packets includes a packet header and a data field, wherein the packet header includes the stream identifier and the data field includes the video data.

52. (New) The method of claim 36, wherein each data packet in the plurality of data packets includes a packet header and a data field, wherein the packet header includes the stream identifier and the data field includes the video data.

53. (New) The host device of claim 42, wherein each data packet in the plurality of data packets includes a packet header and a data field, wherein the packet header includes the stream identifier and the data field includes the video data.

54. (New) The host device of claim 43, wherein each data packet in the plurality of data packets includes a packet header and a data field, wherein the packet header includes the stream identifier and the data field includes the video data.